

**Notice of Allowability**

Application No.

10/723,809

Examiner

Yevgeny Valenrod

Applicant(s)

WEISSBACH ET AL.

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 2-9, 21 and 29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 9/20/04; 9/13/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other

  
JOHANN RICHTER  
SUPERVISORY PATENT EXAMINER  
GROUP 1800

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-9 and 21, are drawn a compound, where the compound is of formula 2, 3, 4 or 5 classified in class 562, subclass 426+.
- II. Claims 10-20 and 22, are drawn to a compound, where the compound is formula 6, 7, 8, 9 or 10 classified in class 562, subclass 427.
- III. Claims 23-28, are drawn to the methods of using the compound of claims 1-22, classified in class 562, subclass 426+.

1. Inventions I and II are related as products which share an alleged common utility of reducing preventing or reversing oxidative damage in cells, but the common utility is not linked to a substantial structural feature. The products in this relationship are distinct if either or both of the following can be shown: (1) that the products encompass embodiments that are not required to perform the common utility or (2) that the products as claimed can be used to perform another utility. In this case, acetyl salicylic acid derivatives and sulindac derivatives each encompass structural features, which do not render one group an obvious variant of the other. The Applicant claims the utility of the claimed compounds to be the function of the thio-group not of the nature of the aromatic moiety. It is the Examiners believe that the two groups are patentably distinct.

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2. Groups I and III, and groups II and III represent two sets of restricted groups. In each set the inventions are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, the process for using the product can be practiced with another, materially different product. For example: Peroxidase and Superoxide dismutase enzymes can be added to cells to be used as catalytic antioxidants.

3. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Nick Zachariades on 3/23/2006 a provisional election was made with traverse to prosecute the invention of compounds of formula 2, 3, 4 or 5, claims 1-9 and 21. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-20 and 22-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Rejoinder***

7. Claims 1-9 and 21 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(b), claims 23-28, directed to the process of making or using the allowable product, previously withdrawn from consideration as a result of a restriction requirement, groups I and III hereby rejoined and fully examined for patentability under 37 CFR 1.104. Claims 10-20 and 22, directed to the invention(s) of compounds of formula 6, 7, 8, 9 or 10 require all the limitations of an allowable product claim, and have NOT been rejoined.

8. Because a claimed invention previously withdrawn from consideration under 37 CFR 1.142 has been rejoined, **the restriction requirement between groups I and III as set forth in this Office action is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claims including all the limitations of an allowable product claim or rejoined process claim are presented in a continuation or divisional application, such claims may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

### EXAMINERS'S AMENDMENT

9. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Nick Zachariades on 04/05/2006.

Cancel claim 1

Claim 2, line 1, replace "The compound of claim 1, having" with "A non-naturally occurring compound comprising at least one methyl sulfide or methyl sulfoxide moiety, the compound being a substrate for at least one MsrA enzyme and at least one MsrB enzyme, wherein the compound is identified by";

Claim 2, line 6, delete "R<sub>5</sub> is a CH of either *R* or *S* configuration";

Claim 3, line 1, replace "The compound of claim 1," with "A compound";

Claim 3, line 6, delete "R<sub>5</sub> is a CH of either *R* or *S* configuration";

Claim 4, line 1, replace "The compound of claim 1," with "A compound";

Claim 5, line 1, replace "The compound of claim 1," with "A compound";

Claim 5, line 6, after "having 1 to 6 carbons;" add "R<sub>6</sub> is a hydrogen or a normal or branched alkyl or fluoroalkyl group having 1 to 6 carbons; R<sub>7</sub> is a nitrogen with substituent R<sub>4</sub> as defined herein, a CH or either *R* or *S* configuration, or a normal or branched alkyl or fluoroalkyl group having 1 to 6 carbons:"

Claim 6, line 1, replace "1" with "2";

Claim 7, line 1, replace "1" with "3";

Claim 8, line 1, replace "1" with "4";

Claim 9, line 1, replace "1" with "5";

Claim 9, line 3 (after the structure), add "wherein n = 1-6";

Cancel claims 10 through 20;

Claim 21, line 1, replace "of claim 1" with "of any one of claims 2-9";

Cancel claim 22-28

Add claim 29: A method of treating a disease related to oxidative damage in a cell consisting essentially of administering to a patient in need thereof, a compound according to claims 2-9, wherein said disease is selected from: smokers emphysema, reperfusion damage, Alzheimers disease, Parkensons disease, amyotrophic lateral sclerosis (ASL), heart attack and stroke.

### ***Allowance***

10. The following is an examiner's statement of reasons for allowance: The applicant claims compounds of formula 2, 3, 4, and 5. The common structural feature in these compounds is the (1Z)-1-benzylidene-5-fluoro-2-methyl-1H-indene moiety, which for example is taught by Pamukcu et al (US 5,965,619). However, Pamukcu et al. identifies substitution at the 3-position of the indene to be an  $\alpha$ -substituted alkyl acetate, which fails to teach or suggest the claimed substitution, particularly where the claimed substituent requires a Sulfur or a Selenium atom in variable oxidation states. Therefore,

It would not have been obvious to a person of ordinary skill in the art to make the required modifications to the compounds of Pamukcu et al in order to arrive to the presently claimed compounds. Consequently, the instant methods of using the claimed compound are also not suggested by Pamukcu et al.

11. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yevgeny Valenrod whose telephone number is 571-272-9049. The examiner can normally be reached on 8:30am-5:00pm M-F.

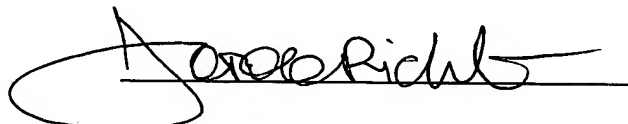
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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